## CLAIMS

**What is claimed is:**

1. Surface modified silica for EMC by plasma polymerization coating with one of following monomers; 1,3-diaminopropane, allylamine, pyrrole 1,2-epoxy-5-hexene, allylmercaptan and allylalcohol.

2. A method of plasma polymerization coating of silica:

1) charging of silica with average diameter of 25-35 ㎛ into a plasma polymerization reactor 1, followed by vacuuming to $1\times10^{-3}$ torr;

2) introducing monomer (1,3-diaminopropane, allylamine, pyrrole,, 1,2-epoxy-5-hexene, allylmercaptan or allylalcohol) into the reactor via steel pipe; and,

3) rotating the reactor at 1-50 rpm at plasma polymerization conditions: plasma powder (10-40 W), gas pressure (40-50 mtorr) and treatment time ( 20-40 seconds).

3. A device for the plasma polymerization coating of silica for EMC:

the tubular reactor 1 of Pyrex with a length of 360 mm and a diameter of 100 mm is designed to revolve via the #1 gear 5.

tubular reactor 1 where RF coil 2 is rolled around outside of rotating cylindrical body;

mixing blade 3 with wings on both sides is installed inside of the reactor and is deigned to rotated to the opposite direction of the reactor;

the tubular reactor is operated by #1 gear 5 and #2 gear 6 which are controlled by the controller 4; and

the monomer for plasma polymerization was supplied form container 8 with mass flow controller 7 or bubbler 10 with a needle valve 9.

4. For EMC containing epoxy resin, hardener, promoter and silica for semiconductor package, wherein the silica is used for EMC was prepared by the method described in claim # 1.